GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:2590
ANSWERED ON:05.12.2001
THORIUM RESERVES
SUBODH MOHITE;SULTAN SALAHUDDIN OWAISI

Will the Minister of ATOMIC ENERGY be pleased to state:

(a) whether India`s thorium reserves are 5 to 6 times larger than the Uranium reserves;

(b) if so, whether the Government propose to harness the thorium reserves to achieve the target of 10000 MW by the next decade;

(c) if so, the details thereof and the steps taken or proposed to be taken by the Government in this regard;

(d) the number of nuclear power stations likely to be upgraded or new plants to be established to achieve the target of 4000 MW by 2002 and 9000 MW by 2012;

(e) the total funds made available to achieve this target during the last three years and achivements made so far in this regard;

(f) whether the Government have chalked out any strategy to augment manpower and strengthen research during the tenth plan period for the Department of Atomic Energy; and

(g) if so, the details thereof?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF SMALL SCALE INDUSTRIES, MINISTER OF STATE IN THE MINISTRY OF PERSONNEL, PUBLIC GRIEVANCES AND PENSIONS, MINISTER OF STATE IN THE MINISTRY OF PLANNING AND MINIST OF STATE IN THE DEPARTMENTS OF ATOMIC ENERGY AND SPACE (SHRIMATI VASUNDHARA RAJE)

(a) Adequate thorium reserves are available in the country.

(b)&(c) The utilisation of thorium reserves for electricity generation is a long-term perspective of the Department to be taken up in the third stage of the programme. However, one Advanced Heavy Water Reactor (AHWR) with a capacity of 235 MWe is being developed by BARC as a technology demonstration project to utilise thorium for electricity generation.It is planned to commence construction of this project in the X Plan subject to the availability of financial resources.

(d) The present nuclear power capacity in the country is 2720 MWe. During the X Plan, nuclear power capacity of 1300 MWe is planned to be added by completion of TAPP-3&4 [2 x 500 MWe (being uprated to 2 x 540 MWe)] and Kaiga - 3 (one 220 MWe, out of 2 x 220 MWe of Kaiga-3&4 under construction) units. Thus the total nuclear power capacity will reach 4020 MWe by the end of the X plan. The proposals in the X Plan envisage commencement of new schemes, for reaching a total nuclear power capacity of 9935 MWe by end of the XI Plan.

The Plant upgradations are carried out, based on needs, to enhance the safety and as a life extension measure for continuation of the generating capacity as required.

(e) During the last three years the fund utilisation by NPCIL, is given below:

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2001-02 :        Rs. 1365.00 crore (anticipated)
2000-01 :          Rs.   854.18 crore
1999-00 :        Rs.   927.52 crore
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The achievements made so far are:

With the completion of Kaiga-1&2 and RAPP-3&4 already, 880 MWe capacity addition has been achieved.The work on TAPP-3&4 [2 x 500 MWe being uprated to 2 x 540 MWe)] and Kaiga 3&4 (2 x 220 MWe) hascommenced and is progressing as per schedule (to add a nuclear power capacity of 1300 MWe in X Plan). Government of India has accorded financial sanction for the construction of the Kudankulam Project at an estimated cost of Rs. 13,171 crore (Rupees Thirteen Thousand One Hundred Seventy One crore only) which is to be financed through the Russian Credit and Indian funding, with scheduled commercial operations of first Unit in the year

2007 and the second Unit in 2008. Essential infrastructure works at site for setting up of 2 x 1000 MWe units at Kudankulam in Tamil Nadu, are already in progress.

Achievements of targets set for X and XI Plans, as given in (d) above would be dependent upon the outlays and budgetary support in the X Plan.

(f)&(g) Recruitment of graduate engineers in the units of Department of Atomic Energy, to staff the nuclear installations, is undertaken through the Training School of the Bhabha Atomic Research Centre (BARC) and its affiliatesRecruited manpower is put through a structured training and qualification programme before they take up positions for operations. Adequate technical manpower is in place to staff the nuclear power stations in operation and other installations. In regard to the future nuclear power plants, programme of recruitment is in place ahead of the timings of the plants going into operation.